



Bridgewater Review

Volume 21 | Issue 2

Article 12

Dec-2002

News from CART

Michael A. Krol

Bridgewater State College, mkrol@bridgew.edu

Julia Stakhnevich

Bridgewater State College, jstakhnevich@bridgew.edu

Recommended Citation

Krol, Michael A. and Stakhnevich, Julia (2002). News from CART. *Bridgewater Review*, 21(2), 26-27.

Available at: http://vc.bridgew.edu/br_rev/vol21/iss2/12

This item is available as part of Virtual Commons, the open-access institutional repository of Bridgewater State University, Bridgewater, Massachusetts.

News from CART

(Center for the Advancement of Research and Teaching)

CART grants enable faculty and librarians to pursue research projects. Two grant recipients, Michael A. Krol, Assistant Professor of Geology and Julia Stakhnevich, Assistant Professor of Foreign Languages, explain their recent work.

GEOLOGIC INVESTIGATION OF THE BLACKTAIL MOUNTAINS



Michael A. Krol

The earth rumbles. The ground shakes. Then a violent explosion occurs, sending plumes of hot ash and rock debris thousands of feet into the air. This is not a science fiction movie starring Ben Affleck. This is what I envision taking place in southwestern Montana. Not to worry, this is not happening today, but 40 to 45 million years ago. The science of geology is very much like the work of a detective. We tend to work backwards to reconstruct what happened to rocks in a particular area and how these rocks have changed through time. We study the rocks we see today at the earth's surface and try to determine, using a variety of techniques and instruments, where, when, and how they formed, as well as what happened to them since they formed. These are the fundamental questions I am trying to answer in my research in the Blacktail Mountains of Montana. This work is part of a collaborative effort with my former undergraduate advisor, Dr. Peter Muller of the State University of New York at Oneonta. Peter and I have remained colleagues and good friends

since my undergraduate days at Oneonta. We have worked together on several problems involving Appalachian and Adirondack geology over the years, resulting in several publications.

The work we are conducting in the Rocky Mountains is ideally suited for undergraduate student involvement. We hope to include students from both SUNY-Oneonta and Bridgewater State in our research study.

The geology of the Blacktail Mountains promises to make this work exciting for years to come. There is a wide range of rock types present in this area, some of which geologists call metamorphic rocks. These are rocks that have undergone a textural or chemical change as a result of variations in temperature and pressure found deep inside the earth. Some rocks are volcanic in origin, resulting from the forceful emplacement of liquid magma very close to or on the earth's surface. The work we have begun in Montana will examine the geologic history of these rocks. This area is particularly interesting because the rocks span a tremendous amount of geologic time. The metamorphic rocks are approximately 2.5 billion years old and the volcanic rocks are as young as 40 million years old (young in regards to geologic time). As part of our study, we will attempt to reconstruct the formation and evolution of the Blacktail Mountains using petrology and mineralogy, which are the study of rocks and minerals, and structural geology, the study of how these rocks are deformed.

During the summer of 2002, we conducted two weeks of fieldwork in the Blacktail Mountains. A CART grant I received last year made the preliminary phase of this project possible. The fieldwork consisted of basic geologic mapping, which forms the backbone of our research, and sample collection for laboratory analysis. Our mapping has already identified several locations where we disagree with the interpretation of published maps. Samples we collected have been cut and ground down to very thin slices. These slices are so thin that light can pass through them so we can study them with an optical microscope. By studying these "thin sections" we can accurately identify and determine the

mineral composition in each rock unit and look for variations, which may tell us something about the origin of these rocks, and whether or not they interacted with any other rocks.

My focus in performing this type of research is to promote our undergraduate research program among our earth science students. Our students benefit tremendously from involvement in active scientific research, including learning to formulate ideas and hypotheses, and drawing conclusions based upon the geologic data they collect. The ultimate goal of our work is to reconstruct the geologic events of an area that has witnessed a very long and complex history.

POP CULTURE AMERICANISMS IN MODERN RUSSIAN



**Julia
Stakhnevich**

As a native speaker of Russian, I have been fascinated with the recent changes in the vocabulary of my native language. An influx of foreign terms has become a conspicuous trait of the modern Russian language. With the fall of the iron curtain and rapid development of a market economy, new linguistic resources were actively sought out in order to either name a multitude of newly available goods, concepts and objects or to differentiate between various meanings. On the other hand, due to the political climate, the attitudes towards the West have changed so dramatically that a simple equation was created in the minds of many Russians between prestige and anything originating from the West. Consequently, foreign borrowings, especially those with origins in American English, have become popular and common in the language.

The purpose of my research project was to conduct a sociolinguistic analysis of recent loan words both in the discourse of current Russian popular magazines and newspapers and in the speech of native speakers in everyday conversations. Specifically, I concentrated on the examination of the semantic domain of popular

fashion, the lexical field that has been heavily influenced by the American culture of Hollywood. The transient nature of fashion-dominated popular culture and its subsequent need to align its vocabulary with the ever-changing trends and styles explain why this terminology is one of the most susceptible areas to borrowing from one language to another. During the spring semester 2001, I conducted a text analysis of popular Russian magazines and compiled a bank of newly adopted Anglo terms in modern Russian. Examples of these new additions to the Russian lexicon include such terms as *top model* "top model," *fitnes* "fitness," *strech* "stretch," *bouling* "bowling," *parti* "party" and many others. From the grammatical standpoint, many of these recent newcomers to the Russian lexical system also represent an intriguing tendency in Russian grammar, namely its veer towards analyticity. Analytism can be broadly defined as a syntactic tendency to express grammatical meaning through fixed word order, governance and context. Alternatively, the use of inflexions exemplifies a synthetic syntactical structure. Within Modern Russian, the tendency toward analyticism in the otherwise synthetic language led to a noticeable rise in the spread of analytical indeclinable constructions that do not utilize native inflections to indicate gender, number and case. This tendency is especially noticeable in non-agreement noun phrases such as *stech tkan'* "stretch fabric," *fitnes programma* "fitness program," *sumka-bodi* "cross-body messenger bag," and *risunok peisli* "paisley pattern."

The second phase of my project consisted of a field trip to Moscow, which I took in summer 2001. During this trip I observed and recorded conversations with native speakers in order to investigate if and how the terms that I had previously found in the discourse of mass media were used in everyday conversation. While in Russia, I concentrated on the examination of how female native speakers of Russian used Americanisms in their interactions, what sociolinguistic factors influenced their lexical choices and what sociocultural attitudes these choices reflected. The results of this second phase of the project indicated that such factors as age, social status, and English proficiency as well as electronic literacy governed the lexical choices of the project participants, making them either accepting of new loans or reluctant to use them. The findings also showed that the participants negotiated their values, beliefs and identity through their lexical choices, often using Americanisms as a means to indicate their membership in a speech community of educated career-oriented professional women. The participants creatively changed the structure of the loan words introduced to the Russian language through mass media, often russifying their pronunciation and morphological structure, thus claiming their ownership of these foreign terms and transforming them into indispensable elements of Russian vocabulary.